Multiplication Centers

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Mrs. Jenkins’ Third Grade Classroom

* The purpose of the centers is so the students can work on their multiplication skills. Mrs. Jenkins is on the unit of multiplication. The students are working on learning their multiplication facts and different representations of multiplication. Students in third grade need to be fluent with their multiplication facts. By the end of third grade, students need to know the facts by memory.
* Standards:

CCSS.MATH.CONTENT.3.OA.A.1

* + Interpret products of whole numbers, e.g., interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each. *For example, describe a context in which a total number of objects can be expressed as 5 × 7*.

CCSS.MATH.CONTENT.3.OA.A.3

* + Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.1

CCSS.MATH.CONTENT.3.OA.B.5

* + Apply properties of operations as strategies to multiply and divide.2 *Examples: If 6 × 4 = 24 is known, then 4 × 6 = 24 is also known. (Commutative property of multiplication.) 3 × 5 × 2 can be found by 3 × 5 = 15, then 15 × 2 = 30, or by 5 × 2 = 10, then 3 × 10 = 30. (Associative property of multiplication.) Knowing that 8 × 5 = 40 and 8 × 2 = 16, one can find 8 × 7 as 8 × (5 + 2) = (8 × 5) + (8 × 2) = 40 + 16 = 56. (Distributive property.)*

CCSS.MATH.CONTENT.3.OA.C.7

* + Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.
* Activities
  + Multiplication War- Students will play this game with a deck of cards. This game is a 2-player game. Each player will get half of the deck. Each player will lay one card down at a time. The first one to come up with the product will win the set of cards. The player with the most cards wins.
  + Multiplication Strategies Foldable- The students will make a foldable for multiplication strategies. The strategies are arrays, repeated addition, equal groups, skip counting, and number line. They will be able to refer back to the foldable when need be.
  + Multiplication Wheels- The students will make multiplication wheel for facts practice. The students will glue a number wheel on to precut construction paper. They will then glue the window viewer on to precut construction paper. With help from a teacher, we will punch a paper clip bracket through the bottom of the window viewer and through the middle of the wheel.
  + Multiplication Fact Booklet- The students will be able to work on their facts and strategies in the booklet. Each student will get seven pages of worksheets. Each page has two worksheets on it. The students will cut the sheets in half, put the sheets in order, and work out each worksheet. Each worksheet has one fact for the student to focus on. With that fact, they will draw an array, write the equal group, show the repeated addition, show the skip counting, and rewrite the problem using the commutative property.
  + Dreambox- Dreambox is a program the school uses that works the students’ mathematical skills through games and activities. The program tests the students and places them in the grade level according to their abilities. The students have different lessons that they work on. The teacher has the ability to track and record the students’ progress.
  + Multiplication.com- Multiplication.com is a website that has games students can play and resources for teachers. The students can play different games to work their multiplication skills.
* The class was divided into groups of three. Each group rotated through each center. They used each center by the following:
  + With the Multiplication War game, there were three students playing together. Each student got a portion of the deck. Two players started out. They each laid down a card, and the first one to say the product won the set of cards. Then, the students rotated to one player who just went and the other player who did not go the first round. They each laid down a card, and the first player to say the product won the set of cards. They then rotated again to the player who played the second but not the first round and the player who played the first but not the second round. They each laid down a card, and the first to say the product won the set of cards. They continued to rotate between the players until the cards were gone. The student with the most cards won the game.
  + With the Multiplication Strategies Foldables, each student made a foldable. They wrote Equal Groups, Array, Repeated Addition, Skip Counting, and Number Line each on each flap. The students then drew a representation of each strategy. The students will use the foldable to refer back to when need they need to. I will make sure they have each strategy written down, and they have the correct representation with each strategy.
  + With the Multiplication Wheels, the students will make the wheels to use as a manipulative for multiplication. The student will make the wheel for the multiplication fact they need to practice. There is a window on the back of the wheel. The students will turn the wheel to each fact, and write the product in the window on the back. I will make sure they wrote the correct product for each fact.
  + With the Multiplication Fact Booklet, the student made a 4 facts booklet. They worked out all the pages in the booklet, and if time permitted they were allowed to color the pages. I will make sure the students are working the pages out correctly.
  + With Dreambox, the students worked on their lessons. Mrs. Jenkins will be tracking their progress.
  + With Multiplication.com, the students played multiplication games on the site.
* The Multiplication Centers went very well. The students enjoyed each center. I was very pleased with how the students really got into each center. They were focused on what they were doing. The behavior of the class was great. The centers worked well. The students did great with each center. They did exactly what they were told to do. They did great on making the wheels, and getting the facts correct. I saw one student looking at the product, and trying to figure out the fact. They did awesome on the fact booklets. They really had to think about each representation on each sheet. They were really into playing the games. The things I would change or do different is I would really watch the time. I did watch the time, and every group didn’t get to finish their center or didn’t make it to a center. What I did change through the middle of the activity is I would bring the materials from another center to a group so they could work on it. I would also change how the centers were set up. I would have them do the centers that they could independently, and call them up by groups to do the centers where they would need teacher assistance. The rotation of centers work, but there were three teachers in the room. Overall, I feel good about how everything went.
* Resources:
  + <http://practicalpages.wordpress.com/free-pages/maths/#_a5y_p=1036450>
    - This site is where I got the Multiplication wheels.
  + <http://www.teacherspayteachers.com/Product/Multiplication-Fact-Booklets-Improving-Understanding-and-Memorization-1061081?pp=1>
    - This is the site where I got the Fact Booklets.
  + <http://www.shortandsassyteacher.blogspot.ca/search?updated-max=2013-11-22T22:52:00-06:00&max-results=3>
    - This site is where I got the idea of the strategies foldable.
  + <http://lovetolearn2012.blogspot.ca/2014/09/math-games.html>
    - This is the site where I got the idea for the game Multiplication War.